

# इंटरनेट

# मानक

## Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 6053-4 (1972): Handtools for footwear industry, Part 4:  
Half round knife [CHD 19: Footwear]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



BLANK PAGE



# *Indian Standard*

## SPECIFICATION FOR HAND TOOLS FOR FOOTWEAR INDUSTRY

### PART IV HALF ROUND KNIFE

UDC 685.31.051.62



© Copyright 1973

**INDIAN STANDARDS INSTITUTION**  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 1

February 1973

Price - Rs. 3.50

Revised Price

Rs. 5.00

Gr 2

*Indian Standard*SPECIFICATION FOR  
HAND TOOLS FOR FOOTWEAR INDUSTRY

## PART IV HALF ROUND KNIFE

Footwear Sectional Committee, CDC 40

*Chairman*

SHRI J. GHOSH

*Representing*

State Trading Corporation of India Ltd, New Delhi

*Members*SHRI A. K. MUKHERJEE ( *Alternate to*

Shri J. Ghosh )

SHRI B. P. AGARWAL

Directorate of Industries ( QMS ), Government of  
Uttar Pradesh, KanpurSHRI K. S. UNNY ( *Alternate to*

SHRI M. ANWAR

Trot Shoe Co Pvt Ltd, Calcutta

SHRI B. N. BAKSHI ( *Alternate to*

SHRI M. B. BAKALE

Bombay Footwear Private Ltd, Bombay

SHRI T. G. BOBADE

Ministry of Defence ( R &amp; D )

SHRI A. BOSE

Bengal Waterproof Works ( 1940 ) Ltd, Calcutta

SHRI R. S. ROY ( *Alternate to*

SHRI D. M. DHAR

Hindustan Steel Limited, Ranchi

SHRI B. N. SRIVASTAVA ( *Alternate to*

SHRI W. G. EDGAR

Ministry of Defence ( DGI )

SHRI M. HUQ ( *Alternate to*

SHRI H. B. GHOSE

Ministry of Labour, Employment &amp; Rehabilitation

SHRI P. N. MEHTA ( *Alternate to*

SHRI G. GHOSH

Bata Shoe Co Pvt Ltd, Calcutta

SHRI B. R. GUPTA ( *Alternate to*

SHRI R. M. HARDIKAR

Swastik Rubber Products Ltd, Poona

SHRI M. P. JOSHI

Directorate of Industries ( QMS ), Government of  
Maharashtra, Bombay

SHRI N. R. LODH

Development Commissioner, Small Scale Industries,  
New DelhiMANAGING DIRECTOR, TAMIL  
NADU S M A L L INDUSTRIES  
CORPORATIONDirectorate of Industries & Commerce ( QMS ),  
Madras

SHRI S. K. MITRA

Central Leather Research Institute ( CSIR ), Madras

SHRI K. T. SARKAR ( *Alternate to*

SHRI G. ROYCHOUHDURY

Export Promotion Council for Finished Leather &  
Leather Manufactures, KanpurSHRI L. C. ARYA ( *Alternate to*

SHRI K. C. SAHA

Central Footwear Training Centre, Madras

SHRI B. N. SARDESAI

J &amp; P Coats ( India ) Pvt Ltd, Bombay

SHRI P. G. MENON ( *Alternate to*( *Continued on page 2* )

INDIAN STANDARDS INSTITUTION

MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG

NEW DELHI 1

## IS: 6053 ( Part IV ) - 1972

( Continued from page 1 )

### Members

### Representing

SHRI B. P. SEN GUPTA	Directorate General of Supplies & Disposals, New Delhi
SHRI FREDRICK MILLER ( Alternate )	
SHRI N. R. SIKDAR	Commerce & Industries Department ( QMS ), Government of West Bengal, Calcutta
SHRI N. R. SRINIVASAN	Tannery & Footwear Corporation of India Ltd, Kanpur
SHRI N. S. GARGOLIA ( Alternate )	
SHRI R. THANJAN	Directorate General of Technical Development, New Delhi
SHRI R. S. GHOSH ( Alternate )	
SHRI B. K. VARMA	Commissioner of Civil Supplies ( Ministry of Foreign Trade ), New Delhi
SHRI D. DAS GUPTA, Director ( Chem )	Director General, ISI ( Ex-officio Member )

### Secretary

SHRI P. S. AROBA  
Assistant Director ( Chem ), ISI

## Shoe Maker's Hand Tools and Equipment Subcommittee, CDC 40 : 7

### Convener

SHRI N. R. LODH	Ministry of Industrial Development & Internal Trade
-----------------	--

### Members

SHRI SITAL DAS	Bata Shoe Co Pvt Ltd, Calcutta
SHRI GUR SARAN DASS	The Agra Shoe Manufacturers Association, Agra
SHRI K. B. POTNIS	ATLANTA, Bombay
SHRI K. C. SAHA	Central Footwear Training Centre, Madras
SHRI N. P. SHARMA	Ideal Engineers, Agra

# *Indian Standard*

## SPECIFICATION FOR HAND TOOLS FOR FOOTWEAR INDUSTRY

### PART IV HALF ROUND KNIFE

#### 0. FOREWORD

**0.1** This Indian Standard ( Part IV ) was adopted by the Indian Standards Institution on 3 October 1972, after the draft finalized by the Footwear Sectional Committee had been approved by the Chemical Division Council.

**0.2** These types of knives are used for skiving of leather strap for sandal manufacture. It is also used for cutting of harness leather used in leather goods industry.

**0.3** For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS:2-1960\*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

---

#### 1. SCOPE

**1.1** This standard ( Part IV ) prescribes the requirements, methods of sampling and tests for half round knife, used for cutting of leather.

#### 2. TERMINOLOGY

**2.1** For the purpose of this standard, the definition given in IS:2050-1967† shall apply.

#### 3. REQUIREMENTS

##### 3.1 Materials

**3.1.1 Blades** — The knife blade shall be made from steel conforming to the performance test given in 3.5.1, 3.5.2 and 3.5.3 ( see T90 of IS:3749-1966‡ ).

---

\*Rules for rounding off numerical values ( revised ).

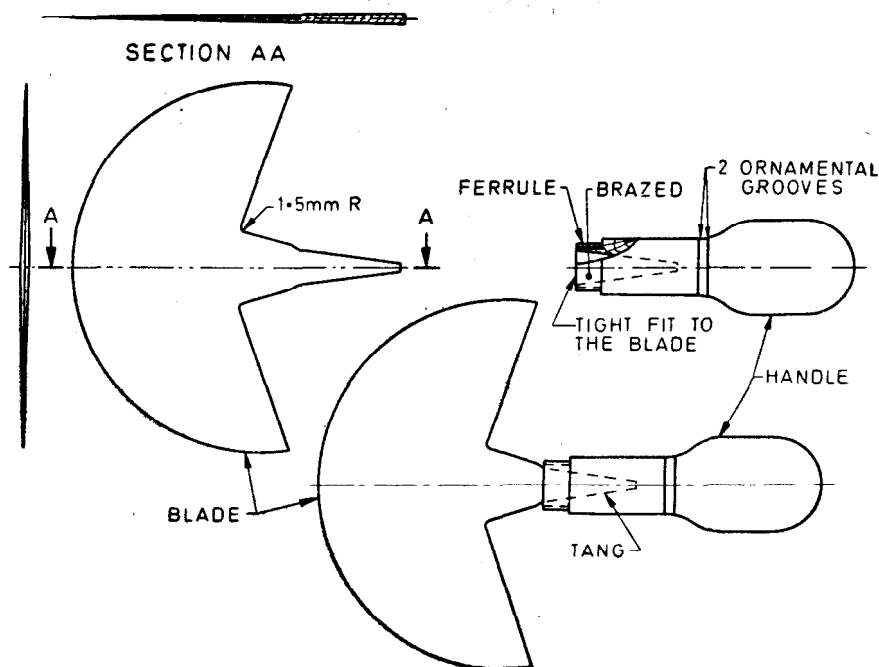
†Glossary of footwear terms.

‡Specification for tool and die steels for cold work.

**3.1.2 Ferrule** — The ferrule shall be manufactured from mild steel tube 0.8 mm wall thickness or brass sheet of 0.8 mm thickness, with rust preventing coating.

**3.1.3 Handle** — Handle of the knife shall be made from wood, conforming generally to the requirements of Class V of IS:620-1965\*.

**3.2 Design and Dimensions** — A typical design with recommendatory dimensions is given in Fig. 1.



Materials for Ferrule = 0.6-0.7 mm Brass Sheet

FIG. 1 HALF ROUND KNIFE

**3.3 Hardness** — The hardness of the finished steel blades of the knife, measured as near to the cutting edge as possible, shall be within 625 to 725 HV when tested according to IS:1501-1968†.

\*General requirements for wooden tool handles (second revision).

†Method for Vickers hardness test for steel (first revision).



### 3.4 General Requirements and Finish

**3.4.1 Blades** — The blades shall be forged to the shape, design as shown in Fig. 1 and suitably hardened and tempered. The blades shall be free from cracks, seams, pits and other visible flaws. The cutting edge of the knife shall be smoothly and evenly ground, capable of being sharpened on an oil stone ready for use within about 20 minutes. The tang shall be well drawn and securely fitted to the handle.

**3.4.2** The hole for the tang shall be neatly made and shall be along the grain of the wood. The handle shall be smoothly finished and shall be coated with two coats of shellac varnish (*see* IS:347-1952\*).

**3.4.3** The ferrules shall be finished smooth and polished bright all over. If made of brass sheet, the ends of the ferrule shall be butt jointed and securely brazed or welded. They shall be securely fitted to the handle.

### 3.5 Performance Requirements

**3.5.1** The knife when suitably sharpened and subjected to a practical cutting test on butt portion of vegetable tanned sole leather (*see* IS: 579-1962†), approximately 5 mm thick, shall cut easily and shall give a clean cut edge. The cutting edge shall fully retain its keenness and shall show no sign of distortion or any other defects on completion of the test.

**3.5.2** The blade of the knife shall not show any sign of blunting, cracking, permanent set or loosening or tendency to fold from the handle on being struck sharp blows on one of the hard timbers given in Appendix A from a height of 250 mm with the cutting edge facing downwards.

**3.5.3** The blades of the knife shall be struck four hard blows across the edge on any of the hard timbers given in Appendix A along its flat surface. The blades shall show no sign of damage or distortion during or after the test.

## 4. MARKING

**4.1** Each handle of the knife or the package or both shall be marked legibly with the following particulars:

- a) Name of the manufacturer or trade-mark, if any; and
- b) Date and year of manufacture.

\*Specification for varnish, shellac, for general purposes.

†Specification for sole leather (*revised*).

**4.1.1** Each handle of the knife or the package or both may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution ( Certification Marks ) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

## **5. PACKING**

**5.1** The blades of the knife shall be wrapped in greased paper and securely tied. The wrapped knives shall then be packed as agreed to between the purchaser and the supplier.

## **6. SCALE OF SAMPLING AND CRITERIA FOR CONFORMITY**

**6.1** The scale of sampling and criteria for conformity shall be as prescribed in Appendix B.

# **A P P E N D I X   A**

( *Clauſes 3.5.2 and 3.5.3* )

## **HARD TIMBERS**

**A-1.** The following timbers may be used for testing the performance of the knives:

TRADE NAME	BOTANICAL NAME
Kusum	<i>Schleichera cleose</i> Merr.
Babul	<i>Acacia nilotica</i> ( Linn. ) Del., Syn. <i>Acacia arabica</i> Linn., fam. Leguminosae
Sissoo	<i>Dalbergia sissoo</i> Roxb.
Sal	<i>Shorea robusta</i> Gaertn.f.
Anjan	<i>Harawickia binata</i> Roxb.
Hopea	<i>Hopea</i> sp.
Mesua	<i>Mesua Ferres</i>

**APPENDIX B**

(Clause 6.1)

**SCALE OF SAMPLING AND CRITERIA FOR CONFORMITY****B-1. SCALE OF SAMPLING**

**B-1.1 Lot**—In a consignment all the knives of the same shape and dimensions shall be grouped together to constitute a lot.

**B-1.2** Each lot shall be tested separately for determining its conformity to the requirements of this specification.

**B-1.3** The number of knives to be selected in the sample depends on the size of the lot and shall be in accordance with col 1 and 2 of Table 1.

---

**TABLE 1 SCALE OF SAMPLING AND PERMISSIBLE NUMBER OF DEFECTIVES**

LOT SIZE	SAMPLE SIZE	PERMISSIBLE NO. OF DEFECTIVES
( 1 )	( 2 )	( 3 )
Up to 25	5	0
26 to 50	6	0
51 and above	13	1

---

**B-1.4** These sample knives shall be selected at random from the lot. For random selection procedures, IS:4905-1968\* may be referred.

**B-2. CRITERIA FOR CONFORMITY**

**B-2.1** All the selected knives shall be examined for material, construction, dimensions and finish and shall also be tested for performance requirements given in 3.5. A knife failing in any one of the above requirements shall be taken as a defective. The number of defectives shall not exceed the permissible number given in col 3 of Table 1 if the lot is to be accepted as satisfactory.

**B-2.2** Two knives, if the lot size is 100 and below, shall be tested for hardness of steel blade. There shall be no failure if the lot is to be accepted under this clause.

---

\*Methods for random sampling.

# INDIAN STANDARDS

## ON

### FOOTWEAR AND FOOTWEAR AUXILIARIES

IS:

- 576-1954 Glazed kid for shoe uppers
- 578-1964 Full-chrome upper leather (*revised*)
- 579-1962 Sole leather (*revised*)
- 583-1969 Ankle boots for general purposes (*first revision*)
- 584-1964 Chaplis, frontier pattern for general purposes (*revised*)
- 622-1956 Russet leather
- 1636-1960 Chrome waxed shoe leather
- 1638-1969 Sizes and fitting of footwear (*first revision*)
- 1989-1967 Miners' safety leather boots and shoes (*first revision*)
- 2050-1967 Glossary of footwear terms
- 2051-1962 Methods for sampling of leather footwear
- 2060-1962 Gents' leather shoes
- 2276-1962 Vegetable and aluminium tanned snakeskins
- 2545-1963 Vegetable tanned lizardskins
- 2961-1964 Chrome retan upper leather
- 3297-1965 Water-resistant vegetable tanned sole leather
- 3735-1966 Canvas shoes, rubber sole
- 3736-1966 Canvas boots, rubber sole
- 3737-1966 Leather safety boots for workers in heavy metal industry
- 3738-1966 Rubber knee boots
- 3840-1966 Lining leather
- 3976-1967 Safety rubber-canvas boots for miners
- 4128-1967 Fireman's leather boots
- 4512-1967 Footwear lasts, wooden
- 4585-1968 Football boots
- 5259-1969 Girls' and maids' school shoes
- 5332-1969 Boys' and youths' school shoes
- 5333-1969 Leather cricket boots
- 5520-1969 Wooden lasts for heavy duty boots
- 5676-1970 Moulded solid rubber soles and heels
- 5689-1970 Ankle derby boots
- 5852-1970 Protective steel toe caps for footwear
- 5853-1970 Open-toe wedge sandal for nurses
- 5865-1970 Wooden heels for women's and girls' footwear
- 6053 (Part I)-1970 Hand tools for footwear industry: Part I Upper clicking knife
- 6053 (Part II)-1971 Hand tools for footwear industry: Part II Bottom cutting knife (*RAMPI*)
- 6053 (Part III)-1971 Hand tools for footwear industry: Part III Designers' knife
- 6053 (Part IV)-1972 Hand tools for footwear industry: Part IV Half round knife
- 6053 (Part V)-1972 Hand tools for footwear industry: Part V Straight hacking knife
- 6368-1971 Methods for sampling of rubber and rubber combination footwear
- 6479-1972 Shoes for nurses
- 6493-1972 Sandals for men
- 6502-1971 Size stick for footwear industry
- 6519-1971 Code of practice for selection, care and repair of safety footwear
- 6664-1972 Micro-cellular rubber soles and heels
- 6719-1972 Solid PVC soles and heels
- 6721-1972 PVC sandals

# PUBLICATIONS OF INDIAN STANDARDS INSTITUTION

## INDIAN STANDARDS

Over 7 000 Indian Standards covering various subjects have been issued so far. Of these, the standards belonging to the Chemical Group fall under the following categories:

Acids	Linters and allied products
Adhesives	Lubricants and related products
Alcohols and allied products	Oil pastes
Alkalies	Oils & fats, oleaginous seeds and fruits
Brushware	Painters' materials (miscellaneous)
Ceramicware, enamelware and laboratory porcelain	Paper and its products
Chemical hazards and safety	Paper and pulp board packaging materials
Chemicals, inorganic (miscellaneous)	Perfumery materials, natural and synthetic
Chemicals, organic (miscellaneous)	Petroleum and petroleum products
Coal and coke	Photographic chemicals
Coal carbonization products	Pigments and extenders
Coated fabrics	Plastics
Cosmetics and toilet goods	Polishes
Drying oils	Printing inks
Dye intermediates	Ready mixed paints and enamels
Electroplating chemicals	Rubber and rubber products
Explosive and pyrotechnic materials	Soaps and other surface active agents
Fertilizers	Tanning materials and allied products
Fillers, stoppers and putties	Thermal insulation materials
Footwear	Thinners and solvents
Glass and glassware	Varnishes and lacquers
Industrial gases	Water and water treatment
Inks and allied products	Water based paints
Laboratory glassware thermometers and related apparatus	Unclassified
Lac and lac products	
Leather, leather goods and leather dressings	

## OTHER PUBLICATIONS

ISI Bulletin (Published Every Month)					
Single Copy	...	...	...	...	Rs 3.00
Annual Subscription	...	...	...	...	Rs 25.00
Standards: Monthly Additions					
Single Copy	...	...	...	...	Rs 0.30
Annual Subscription	...	...	...	...	Rs 3.00
Annual Reports (from 1948-49 Onwards)	...	...	...	...	Rs 2.00 to 5.00
ISI Handbook, 1972	...	...	...	...	Rs 20.00

## INDIAN STANDARDS INSTITUTION

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 1

Telephone : 27 01 31 ( 20 lines )

Telegrams : Manaksanstha

### Branch Offices :

\* Sadhna \*, Nurmohamed Shaikh Marg, Khanpur  
F Block, Unity Bldg. Narasimharaja Square  
534 Sardar Vallabhbhai Patel Road  
5 Chowringhee Approach  
5-9-201/2-A (First Floor), Chirag Ali Lane  
117/418 B Sarvodaya Nagar  
54 General Patters Road

### Telephone

Ahmedabad 1 2 03 91  
Bangalore 2 2 76 49  
Bombay 7 35 69 44  
Calcutta 13 23-08 02  
Hyderabad 1 5 34 35  
Kanpur 5 82 72  
Madras 2 8 72 78